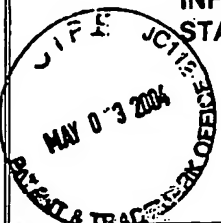


Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT 	Atty. Docket No.	Serial No.
	02-1031-A	10/673,054
	Applicant: Engel, et al.	
Filing Date: September 26, 2003	Group: 1645	

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
VF	1.	US 2003/0054435 A1	03/20/2003	Anthony C. Grabski	435	68.1	09/10/2002


FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

Examiner	/Vanessa Ford/	Date Considered	07/13/2006
----------	----------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-1031-A	Serial No. 10/673,054
		Applicant: Engel, et al.	
		Filing Date: September 26, 2003	Group: 1645

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
VF	1.	4,797,474	01/10/1989	Patroni, et al.	530	351	12/09/1986
	2.	4,992,531	02/12/1991	Patroni, et al.	530	351	06/13/1988
	3.	5,973,137	10/26/1999	Ellen M. Heath	536	25.4	06/02/1997
	4.	5,981,235	11/09/1999	Schultz, et al.	435	91.1	07/29/1996
	5.	6,174,704 B1	01/16/2001	Chu, et al.	435	69.1	12/23/1998
	6.	6,210,915 B1	04/03/2001	Shay, et al.	435	15	12/23/1998
	7.	US 2001/0034066 A1	10/25/2001	Aftab Alam	436	86	04/27/2001
	8.	US 2002/0012982	01/31/2002	Blakesley, et al.	435	183	07/13/2001

FOREIGN PATENT DOCUMENTS

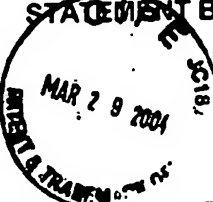
		Document Number	Date	Country	Class	Subclass	Translation Yes No
VF	9.	WO 01/00668 A1	01/04/2001				
	10.	WO 01/75147 A1	10/11/2001				
	11.	WO 02/057478 A1	07/25/2002				
	12.	WO 02/06456 A1	01/24/2002				
	13.	EP 0 173 937 A2	03/12/1986				
	14.	EP 0 222 725 B1	03/11/1992				
	15.	EP 0 671 473 A1	09/13/1995				

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

VF	16.	Product Description for n-Octyl-b-D-thioglucoiside, http://www.dojindo.com/newprod/1/cell-m/detergen/8sglu.html , 2003.
	17.	Novagen, Inc. Product Description for BugBuster® Extraction Reagent, 2002.
	18.	Novagen, Inc. Product Description for HisBind® Kits, 2002.

Examiner /Vanessa Ford/	Date Considered 07/13/2006
----------------------------	-------------------------------

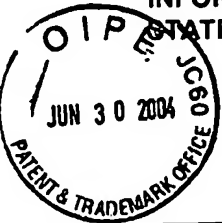
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form RTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-1031-A	Serial No. 10/673,054
INFORMATION DISCLOSURE STATEMENT BY APPLICANT 		Applicant: Engel, et al.	
		Filing Date: September 26, 2003	Group: 1645

VF	19.	Pierce Product Description and Instructions for B-PER [®] Bacterial Protein Extraction Reagent, 2001.
	20.	Sigma-Aldrich Co. Product Description for Octyl-b-D-1-thioglucoopyranoside, http://www.sigmaaldrich.com/cgi-bin/hsrun/Distributed/Hahtshop/HahtShop.htm?start=frm , 2003.
	21.	Tomah Products, Inc. Product Description For Ethoxylated Amines, 1998.
	22.	Fox, Charles, "Rationale For the Selection of Emulsifying Agents", <i>Cosmetics & Toiletries</i> , Vol. 101, 1986, pp. 25-44.
	23.	Graciaa, A., et al., "A Study of the Required Hydrophile-Lipophile Balance for Emulsification", <i>Landmuir</i> , Vol. 5, 1989, pp. 1315-1318.
	24.	Griffin, William C., "Calculation of HLB Values of Non-Ionic Surfactants", <i>Journal of the Society of Cosmetic Chemists</i> , Vol. 5, 1954, pp. 249-256.
	25.	Griffin, William C., "Classification of Surface-Active Agents by "HLB", <i>Journal of the Society of Cosmetic Chemists</i> , Vol. 1, 1949, pp. 311-326
	26.	Mörbe, et al., "Release of Miniantibodies from <i>E. Coli</i> Cells into the Supernatant at Low and High Cell Densities," <i>Microbiological Research</i> , Vol. 152, 1997, pp. 385-394.

Examiner	/Vanessa Ford/	Date Considered	07/13/2006
----------	----------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form-PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-1031-A	Serial No. 10/673,054
INFORMATION DISCLOSURE STATEMENT BY APPLICANT 		Applicant: Engel, et al.	
		Filing Date: September 26, 2003	Group: 1645

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
VF	1.	5,489,676	02/06/1996	Elsbach et al.	536	22.1	02/26/1993
	2.	5,593,866	01/14/1997	Hancock et al.	435	69.7	12/20/1995
	3.	5,760,189	06/02/1998	Vicik et al.	530	412	06/02/1995

FOREIGN PATENT DOCUMENTS


		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

VF	4.	Berg B. Hofsten AV., "The Ultrastructure of the Cellulolytic Bacterium Cellvibrio Fulvus.", <i>Can. J. Microbiol.</i> , March 1975, Vol. 21, No. 3, p. 386-391. (ABSTRACT ONLY)
	5.	Hancock, R.E.W., "Alterations In Outer Membrane Permeability", <i>Ann. Rev. Microbiol.</i> , 1984, Vol. 38, p. 237-264.
	6.	Lin, Jung-Hsin et al., "Stability of a Melittin Pore in a Lipid Bilayer: A Molecular Dynamics Study", <i>Biophysical Journal</i> , April 2000, Vol. 78, p. 1714-1724.

Examiner /Vanessa Ford/	Date Considered 07/13/2006
----------------------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-1031-A	Serial No. 10/673,054
INFORMATION DISCLOSURE STATEMENT BY APPLICANT 		Applicant: Engel, et al.	
		Filing Date: September 26, 2003	Group: 1645

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
VF	1.	20030054435		Grabski et al.	435	68.1	9/10/02

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

VF	2.	Grabski, et al., "Automated Methods for Solubility Screening and Recombinant Protein Purification", <i>American Biotechnology Laboratory</i> , pp. 34, 36 and 38 (August 2003)
	3.	Grabski et al., "Automated purification of recombinant proteins in a 96-well format with RoboPop™ Kits and robotic sample processing", <i>Innovations Newsletter</i> , No. 14, pp. 2-5 (July 2002)
	4.	Grabski et al., "Automated solubility screening of recombinant proteins in a 96-well format", <i>Innovations Newsletter</i> , No. 16, pp. 11-13 (March 2003)

Examiner /Vanessa Ford/	Date Considered 07/13/2006
----------------------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-1031-A	Serial No. 10/673,054
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant: Engel, et al.	
		Filing Date: September 26, 2003	Group: 1645



VF	5.	Grabski et al., "BugBuster™ and Benzonase®: The clear solutions to simple, efficient extraction of <i>E. coli</i> proteins", <i>Innovations Newsletter</i> , No. 10, pp. 17-19
	6.	Grabski et al., "Extraction and purification of proteins from <i>E. coli</i> without harvesting cells", <i>Innovations Newsletter</i> , No. 13, pp. 1-4 (November 2001)
	7.	Loomis et al., "Centrifugation-free protein extraction and purification from total cultures of baculovirus-infected insect cells", <i>Innovations Newsletter</i> , No. 15, pp. 16-19 (November 2002)
	8.	Mehler et al., "Robotic solubility screening and purification of fusion proteins", <i>Innovations Newsletter</i> , No. 18, pp. 20-22

Examiner	/Vanessa Ford/	Date Considered	07/13/2006
----------	----------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1996

**4th SUPPLEMENTAL
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

1

Application Number

Complete if Known

10/673,054

Filing Date

September 26, 2003

First Named Inventor

Engel

Art Unit

1645

Examiner Name

Ford, Vanessa L.

Attorney Docket Number

02-1031-A

Examiner
Initials*Cite
No.¹

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

 τ^2

VF

1

SAITO ET AL., "Characteristics of N-octyl β -D-thioglucopyranoside, a new non-ionic detergent useful for membrane biochemistry," *Biochem. J.*, 1984, Vol. 22, pp. 829-832.

**Examiner
Signature**

/Vanessa Ford/

Date
Considered

07/13/2006

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.